



8EHQ-0804-14151

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The Dow Chemical Company
Midland, Michigan 48674

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(Attn: TSCA Section 8(e) Coordinator)
Office of Pollution Prevention and Toxics
Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460-0001

CONTAINS NO CB

2004 SEP -9 AM 8:02

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DPT HQ

Re: Update of Previous Dioxin Mortality Study,
8EHQ-0398-14151; Submission of Wild Game Study

Dear Sir/Madam:

The following information is being submitted by The Dow Chemical Company (Dow) pursuant to current guidance issued by EPA indicating EPA's interpretation of Section 8(e) of the Toxic Substances Control Act. Dow has made no determination as to whether a significant risk of injury to health or the environment is actually presented by the findings.

A probe study was initiated for the purpose of determining the number of workers required for a subsequent study to validate previous exposure estimates from Dow health studies of chemical workers potentially exposed to dioxins at one manufacturing facility (8EHQ-0398-14151). The probe study included workers with potential workplace dioxin exposure and a comparison group of workers with no known workplace dioxin exposure potential. The probe study included a questionnaire and blood sample.

Lipid adjusted levels of 2,3,7,8-TCDD and 2,3,7,8-TCDD toxic equivalents (TEQ) for 7 dioxins, 10 furans and 4 PCBs were determined from blood samples. While all workers were found to have positive lipid adjusted levels, both serum lipid adjusted levels for 2,3,7,8-TCDD and the TEQ were greater in the exposed group than in the comparison group.

These data were not adjusted for factors such as age, current body mass index, change in body mass index from 1 year earlier, consumption of freshwater game fish, years since last workplace exposure, and years since diagnosis of chloracne.



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No written report of these results is yet available. Dow will provide the final report to EPA. In the meantime, if EPA should need additional information from this probe study, please contact the undersigned.

In addition, attached is a link to a final report entitled "Evaluation of PCDDs and PCDFs in Wild Game Taken From the Floodplain Along the Tittabawassee River" (Wild Game Study), which was reviewed with and submitted to the Michigan Department of Environmental Quality (MDEQ) by Dow on July 9, 2004. The Wild Game Study was conducted pursuant to the conditionally approved Interim Remedial Action work plan submitted to MDEQ in October, 2003. It was conducted under the terms of the Off Site Corrective Action portion of Dow's RCRA License, issued June 12, 2003, by MDEQ. The Wild Game Study report is available on the following website:
<http://www.dow.com/facilities/namerica/michigan/dioxin/work/wildgame.htm>.

Ninety-four samples of wild game, including deer, turkeys and squirrels, were collected between November 2003 and mid-January 2004. Higher dioxin levels were found in the livers of deer taken south of Midland, which averaged 37 ppt, and in turkey meat with the skin left on, which averaged 10 ppt. The higher concentrations in deer livers are explained by the fact that deer graze and ingest soil, and the liver functions as a filter to remove such materials as dioxins. Similarly, the higher levels in turkey meat with skin attached are likely due to their diet, the higher fat content of skin, and the higher rate at which these birds ingest soil. Removing the skin and associated fat from wild turkeys, which is a common practice to avoid plucking feathers, cuts the dioxin level almost in half, to 6.5 ppt.

Questions may be addressed to the undersigned.

Sincerely,



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